



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/668,466 | 09/22/2003 | Rajiv Singh | MWS-092 | 2337 |
| 959 | 7590 | 04/11/2005 | EXAMINER | |
| LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109 | | | PATEL, RAMESH B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2121 | |

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,466

Applicant(s)

SINGH ET AL.

Examiner

Ramesh B. Patel

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-73 are presented for examination.
2. The claims and only the claims form the metes and bounds of the invention.
“Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)” (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Claim Objections

3. Claim 9 is objected to because of the following informalities:
Claim 9, line 3, include the term “analysis..” should be “analysis.” to remove extra period at the end of the claim 9.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-73 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuduka et al. (US Patent 5,495,417).

As to claims 1, 13, 20, 25, 27, 39, 46, 51-52 and 63, Fuduka teaches the invention including in a computer environment including a display for viewing by a user; a method, a system and a computer medium, comprising: collecting batch process data from an ongoing process, said collection of process data being measurement of said ongoing process is taught as the system for automatically producing different semiconductor products in different quantities through a plurality of processes along production line has a section for preparing a process flow containing a series of processes and process conditions (see, abstract and figures 6-9 and col. 15, lines 6-30); performing analysis of said collection of process data prior to the completion of said batch process is taught as the equipment data analyzer analyzes data from the process (see, figure 1a, element 228 and col. 13, lines 43-65); determining an indicator of process condition based upon said analysis, said indicator of process condition, based on predicated future data from the ongoing batch (see, abstract and figures 1a-8 and

col. 13, line 52 to col. 14, line 11); and displaying said indicator of process condition and said control region in three dimensional view on said display to said user (see, abstract and figure 6-7 and col. 15, lines 6-30).

As to claims 2, 14, 22, 28, 40, 48, 53 and 64, Fuduka teaches the method, the system and the computer medium, wherein said process is one of a manufacturing process and a software process is taught as the system for automatically producing semiconductor products (see, abstract and figure 7).

As to claims 3, 21, 29, 47, 54 and 65, Fuduka teaches the method, the system and the computer medium, wherein said computing environment is a graphical programming environment (see, abstract and figure 6-7 and col. 15, lines 6-30).

As to claims 4, 16, 24, 26, 30, 42, 50, 55 and 66, Fuduka teaches the method, the system and the computer medium, wherein said process data is a generated as a result of at least one of an execution and simulation of at least one block diagram (see, abstract and figures 1b and 3 and col. 14, lines 46-60).

As to claims 5-8, 10-12, 17-19, 31-34, 36-38, 43-45, 56-59, 61-62, 67-70 and 72-73, Fuduka teaches the method, the system and the computer medium, further comprising: determining an indication of aberrant behavior based upon relative disjointedness of forecasted process condition at batch completion and the in-control

Art Unit: 2121

region and altering said process prior to batch completion based on said determining; varying at least one of a color and transparency of said displayed control region and said indicator of process condition via a user operated control, rotating a user viewpoint and at least one of a plurality of lighting conditions of said display said display via user operated control (see, abstract and figure 1a-8 and col. 15, lines 6-30).

As to claims 9, 15, 23, 35, 41, 49, 60 and 71, Fuduka teaches the method, the system and the computer medium, wherein said analysis is Principle Component Analysis (PCA), Multi-way PCA, Projection on Latent Structure (PLS), Multi-way PLS or Functional PCA analysis (see, figure 1a, element 228 and col. 13, lines 43-65).


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2121

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh B. Patel whose telephone number is 571-272-3688. The examiner can normally be reached on M-Th; 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ramesh B. Patel
Primary Examiner
Art Unit 2121

rp